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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.       |
|---|-------------|----------------------|-------------------------|------------------------|
| 09/828,271  | 04/05/2001  | Vijayan Rajan        | 5693p286                | 6350                   |
| 48102   | 7590        | 09/24/2007           |                         |                        |
| NETWORK APPLIANCE/BLAKELY<br>1279 OAKMEAD PARKWAY<br>SUNNYVALE, CA 94085-4040 |             |                      | EXAMINER<br>VO, LILIAN  |                        |
|   |             |                      | ART UNIT<br>2195        | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>09/24/2007 | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/828,271 | <b>Applicant(s)</b><br>RAJAN ET AL. |  |
|                              | <b>Examiner</b><br>Lilian Vo         | <b>Art Unit</b><br>2195             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11, 12, 14, 16, 23 and 30 - 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 14, 16, 23 and 30 - 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 11, 12, 14, 16, 23 and 30 - 36 are pending. Claims 1 – 10, 13, 15, 17 – 22 and 24 - 29 have been cancelled.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/29/07 has been entered.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 11 recites the limitation “each of the shared resources is assigned to one of the scheduling domains” lines 4 – 5. This is considered unclear and vague. What is considered shared resources? Furthermore, should **shared resources** be available to all domains since they are being shared? Clarification is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11, 12, 14, 16, 23 and 30 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers (US 2001/0036181).

8. Regarding **claim 11**, Rogers discloses a method comprising:

running a plurality of tasks in a multiprocessor system (page 9 paragraph 84 – 85: process incoming packets using packet processors 420, 421 and 422);

implicitly synchronizing the tasks with regard to shared resources in said system by associating said tasks with scheduling domains, wherein each of the shared resources is assigned to one of the scheduling domains (page 9 paragraph 84 – 85: each packet processors within the switch have multiple queues to store packets);

prohibiting tasks that are each associated with a same scheduling domain from running concurrently (page 9 paragraphs 84 - 85: each packet processor can execute one packet at a time while the rest are being stored in its queues);

allowing tasks that are each associated with different scheduling domains to run concurrently (page 9 paragraphs 84 - 85: each packet processor can execute its queuing packets concurrently with other packet processors to determine); and

changing association of a task of the plurality of tasks from a first scheduling domain to a second scheduling domain, if the task requests a shared resource assigned to the second scheduling domain (page 9 paragraphs 84 - 85: if packet processor determines that the packet should be transmitted to another packet processor, then the packet processor will transfer the packet to the destination network processor).

With respect to the limitation of changing association of a task from a first scheduling domain to a second scheduling domain if the task requests a shared resource assigned to the scheduling domain, Rogers discloses that if packet processor determines that the packet should be transmitted to another packet processor, the packet is transferred. Therefore, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to recognize the determination of requiring transfer to a different packet processor implies the association of packet with the first packet processor (domain) is changing to the transferred packet processor (second domain) and thus packet will be using/accessing the transferred packet processor as a resource as necessary.

9. **Claim 12** is rejected on the same ground as stated in claim 11 above.

10. Regarding **claim 14**, Rogers discloses at least one of the set of tasks is associated with more than one scheduling domain of the plurality of scheduling domains (page 9 paragraphs 84 - 85: the incoming packet can be placed on a queue or send to another packet processor for transmission.)

Art Unit: 2195

11. Regarding **claim 16**, Rogers discloses a scheduler includes a plurality of runnable queues one per scheduling domains (page 9 paragraphs 84 - 85: each packet processor can have multiple queues).

12. **Claims 23 and 30** are rejected on the same ground as stated in claim 11 above.

13. Regarding **claim 31**, Rogers discloses allowing concurrently executing processes that are not associated with any one of the plurality of scheduling domains (abstract: schedules are negotiated between packet transmitter applications and packet receiver applications).

14. **Claims 32 - 36** are rejected on the same ground as stated in claims 11, 14, 16 and 31 above.

#### ***Response to Arguments***

15. Applicant's arguments with respect to claims 11, 12, 23, 30 and 34 - 36 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Thursday from 7:30am - 5pm.

Art Unit: 2195


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo  
Examiner  
Art Unit 2195

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September 11, 2007

  
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SUPERVISORY PATENT EXAMINER  
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